

Homework 4 – Percentages and Fractions

Remember to explain your thinking by showing working.

Calculator allowed

1. John has just put £700 into a savings account where the rate of interest is 4% per annum. How much will his savings be worth after 3 years?
2. Hassan has been told his hourly pay is to increase by 6% to £9.54. Calculate his hourly rate before the increase.
3. My new car has just cost me £18,000. Its value will depreciate by 20% every year. How much will it be worth when I trade it in 3 years from now?
4. Due to fire damage, the value of a painting has fallen by 34% and is now valued at £4158. What was its value before the damage?

No calculator

5. Work out the answers to the following:

(a) $\frac{2}{5} + \frac{1}{7}$

(b) $3\frac{3}{4} - \frac{7}{11}$

(c) $2\frac{1}{3} + 1\frac{2}{5}$

(d) $6\frac{3}{7} - 3\frac{5}{9}$

(e) $\frac{2}{3} \times \frac{3}{4}$

(f) $\frac{5}{9} \div \frac{15}{36}$

(g) $2\frac{4}{7} \times \frac{28}{45}$

(h) $5\frac{1}{2} \div 3\frac{2}{3}$

6. Calculate: (a) $\frac{7}{8} + \frac{4}{5} - \frac{3}{7}$ (b) $\frac{5}{8} - \frac{2}{9} \times \frac{3}{10}$ (c) $2\frac{1}{4} \div \left(\frac{9}{10} + \frac{2}{3}\right)$

7. Laura has applied to join the RAF and has to sit an 'Entrance Test'. Part of it includes some problems with fractions. Work out the answers.

(a) $\frac{5}{6} + \frac{3}{7}$

(b) $3\frac{3}{8} - \frac{5}{16}$

(c) $\frac{11}{15} \times \frac{3}{22}$

(d) $\frac{34}{45} \div \frac{85}{102}$

(e) A plank of wood $3\frac{3}{4}$ metres long is cut up into 5 equal pieces. How long is each piece?

(f) Each cow in a herd of 25 produces $4\frac{2}{3}$ litres of milk. How much milk is this in total?